

## TECHNICAL MEMORANDUM

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Date: April 30, 2019

Subject: Parking Demand Analysis – Sixth Street Park, Art, River and Connectivity  
Improvements Project, City of Los Angeles

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### INTRODUCTION

Kimley-Horn and Associates, Inc. was contracted by GPA Consulting to prepare a parking demand analysis for the proposed Sixth Street Park, Arts, River & Connectivity Improvements (PARC) Project for The City of Los Angeles Department of Transportation (LADOT). The City of Los Angeles is proposing to create approximately 13 acres of recreation space in areas underneath and adjacent to the Sixth Street Viaduct within the Arts District and Boyle Heights neighborhoods. The proposed park is divided into the following sections: (1) West Park; (2) Arts Plaza and River Gateway; and (3) East Park. The West Park area will include a 630-square foot (sq.ft.) café, an Arts Plaza performance area, flexible play and performance lawn, and dog play areas. The East Park area will include two soccer fields, a 2,000-s.f. building featuring concessions and public restrooms, two flexible play and performance lawns, sports courts, children's play area, picnic areas, and dog play areas. The park is for daily use and will also host special events such as concerts, festivals, soccer tournaments, and farmer's markets. The number of event attendees may vary from 50 to 5,000 depending on the type of event.

This technical memorandum provides a parking demand analysis for the Sixth Street PARC during a typical weekday, typical weekend, and special event. The analysis utilizes the ITE *Parking Generation, 4<sup>th</sup> Edition* parking rates to estimate demand. The memorandum also provides a comparison of parking identified on the Overall Plan for the Sixth Street PARC (see Appendix A) to the calculated parking demand, to assess the parking sufficiency at the Sixth Street PARC. Per the Overall Plan, 31 public parking spaces plus 14 dedicated parking spaces are provided. The 31 public parking spaces are distributed among four on-street parking locations. The West Park has one on-street parking zone located on Mateo Street south of Willow Street. The remaining three on-street parking zones are in the East Park on Mission Road, S Anderson Street, and S Clarence Street. The 14 dedicated parking spaces are in a parking lot in the East Park on S Anderson Street; however, 9 of the 14 dedicated parking spaces would be assigned to City of Los Angeles Recreation and Park (RAP) staff. The remaining 5 parking spaces will be available for the park's users.

**METHODOLOGY**

This technical memorandum applied the parking rates listed in ITE *Parking Generation, 4<sup>th</sup> Edition* to estimate the parking demand for the Sixth Street PARC for a typical weekday, typical weekend, and special event. The City of Los Angeles Department of Building and Safety and the Urban Land Institute’s parking requirements were considered; however, these standards do not provide parking rates for recreational land uses. Parking rates from the following ITE land uses were used in this study: “Soccer Complex” and “City Park”. The independent variables used to calculate the parking demand were obtained from the Proposed Project Elements document and Overall Plan (site plan) provided by The City of Los Angeles, which are included in **Appendix A**.

Three parking analysis scenarios were considered in this technical analysis. Scenario 1 classifies the entire project area under the “City Park” land use designation. The total parking demand for Scenario 1 is calculated based on the total project acreage. Scenario 2 calculated the parking demand for the project using the “Soccer Complex” land description based on the number of soccer fields. The “City Park” land use is more appropriate based on the project description; however, the “Soccer Complex” represents a conservative estimate for daily parking demand at the PARC because of the higher parking demand rate. Scenario 3 calculates the parking demand when the park hosts a special event.

**ANALYSIS AND FINDINGS**

The parking demand analysis was conducted to estimate the parking demand for the Sixth Street PARC for a typical weekday and weekend.

**ITE Parking Requirements**

The ITE *Parking Generation, 4<sup>th</sup> Edition* specifies the off-street parking requirements for a variety of land uses. The parking rates for the specific ITE land use codes are provided in **Appendix B**. According to Subdivision 4 of Subsection A of Section 12.21 of the City of Los Angeles Municipal Code, parking spaces located within 1,500 feet of a fixed rail station, bus station, or other similar transit facility, may replace up to 30 percent of the required automobile parking spaces with bicycle spaces at a ratio of one parking space for every four bicycle spaces provided. The following existing Metro bus stops are within 1,500 feet of the proposed project site: 6<sup>th</sup> Street / Alameda Street, 7<sup>th</sup> Street / Mateo Street, and 7<sup>th</sup> Street / S Santa Fe Street, and 7<sup>th</sup> Street / S Anderson Street. This parking study replaced 30 percent of the required parking spaces with bicycle parking spaces.

**Table 1** summarizes the parking demand for the Sixth Street PARC during a typical weekday for each of the three scenarios defined in the prior section.

**Table 1 – Sixth Street PARC Weekday Parking Demand**

Scenario	Land Use	Units	Weekday Parking Requirement	Vehicle Parking Spaces Required	Total Vehicle Parking Spaces Required <sup>3</sup>	Bicycle Parking Spaces Required <sup>4</sup>
1	City Park <sup>1</sup>	13 Acres	5.10 spaces/acre <sup>2</sup>	67	47	80
2	Soccer Complex	2 Fields	38.30 spaces/field	77	54	92

Scenario	Land Use	Units	Weekday Parking Requirement	Vehicle Parking Spaces Required	Total Vehicle Parking Spaces Required <sup>3</sup>	Bicycle Parking Spaces Required <sup>4</sup>
3	Live Theater	5,000 Attendees	0.38 spaces/attendee	1,900	1,330	2,280

<sup>1</sup>City Park Site 1

<sup>2</sup>Applied weekend parking demand ratio since weekday parking demand ratio is not available

<sup>3</sup>Replaced 30% of total required parking spaces with bicycle parking

<sup>4</sup>Calculated using replacement ratio of one parking space for every four bicycle spaces per Section 12.21 of the City of Los Angeles Municipal Code

As presented in **Table 1**, Scenario 1 classifies the entire 13-acre Sixth Street PARC as a “City Park” and determines there is a demand for 47 total vehicle parking spaces and 80 bicycle parking spaces on a typical weekday. Scenario 2 classifies the Sixth Street PARC as a “Soccer Complex” and requires 54 total vehicle parking spaces and 92 bicycle parking spaces for a typical weekday. Scenario 3 calculates the parking requirement when the park hosts special events based on parking rate for a “Live Theatre.” A weekday special event with 5,000 attendees would require 1,330 vehicle parking spaces and 2,280 bicycle parking spaces.

**Table 2** summarizes the parking demand for the Sixth Street PARC during a typical weekend for each of the three scenarios.

**Table 2 – Sixth Street PARC Weekend Parking Demand**

Scenario	Land Use	Units	Weekend Parking Requirement	Vehicle Parking Spaces Required	Total Vehicle Parking Spaces Required <sup>3</sup>	Bicycle Parking Spaces Required <sup>4</sup>
1	City Park <sup>1</sup>	13 Acres	5.10 spaces/acre	67	47	80
2	Soccer Complex	2 Fields	58.80 spaces/field	118	83	140
3	Live Theater	5,000 Attendees	0.38 spaces/attendee <sup>2</sup>	1,900	1,330	2,280

<sup>1</sup>City Park Site 1

<sup>2</sup>Applied weekday parking demand ratio since weekend parking demand ratio is not available

<sup>3</sup>Replaced 30% of total required parking spaces with bicycle parking

<sup>4</sup>Calculated using replacement ratio of one parking space for every four bicycle spaces per Section 12.21 of the City of Los Angeles Municipal Code

As presented in **Table 2**, Scenario 1 classifies the entire 13-acre Sixth Street PARC as a “City Park” with a requirement of 47 total vehicle parking spaces and 80 bicycle parking spaces on a typical weekend day. Scenario 2 classifies the Sixth Street PARC as a “Soccer Complex” and requires 83 total vehicle parking spaces and 140 bicycle parking spaces for a typical weekend day. Scenario 3 calculates the parking requirement when the park hosts special events based on parking rate for a “Live Theatre.”

A weekend special event with 5,000 attendees would require 1,330 vehicle parking spaces and 2,280 bicycle parking spaces.

## CONCLUSIONS & RECOMMENDED MITIGATION MEASURES

Parking demand for Sixth Street PARC was calculated under three scenarios. Scenario 1 calculates the parking requirement for the ITE land use code “City Park”, Scenario 2 calculates the parking requirement for the ITE land use code “Soccer Complex”, and Scenario 3 calculates the parking requirement for the ITE land use code “Live Theater”. Scenarios 1 and 2 represent a typical day at the park whereas Scenario 3 represents a day where the park hosts a large event. Scenario 1 requires 7 fewer parking spaces than Scenario 2 for a weekday and 36 fewer parking spaces for a weekend than Scenario 2. The “City Park” land use for Scenario 1 is more appropriate based on the project description; however, the “Soccer Complex” land use for Scenario 2 represents a conservative estimate for daily parking demand at the PARC because of the higher parking demand rate. Scenario 3 provides a parking requirement for special events with 5,000 attendees. According to the project description, events with 5,000 attendees will occur approximately once a year. Therefore, typical parking requirements for the Sixth Street PARC should not be based on special events that occur infrequently. Based on the above considerations, it is recommended that Scenario 2 “Soccer Complex” be used to determine the parking requirements for the Sixth Street PARC.

The Scenario 2 methodology determined that 54 vehicle parking spaces and 92 bicycle parking spaces are required for the typical weekday demand (Table 1) and 83 vehicle parking spaces and 140 bicycle parking spaces are required for the typical weekend demand (Table 2). The proposed site plan (see Appendix A) identifies 31 public vehicle parking spaces and 5 dedicated vehicle parking spaces in the East Parking Plaza for a total of 36 parking spaces for park users. Therefore, the number of total parking spaces provided would not meet the parking requirement for Sixth Street PARC on a typical weekday, typical weekend day, or special event. The 9 parking spaces in the East Parking Plaza are not included in the total number of parking spaces because they are reserved for RAP staff.

The installation of additional amenities for bicyclists, drivers, and transit users would create a mobility hub at the Sixth Street PARC that would encourage event attendees to use alternative modes of transportation and potentially mitigate the parking deficiency. Park visitors arriving via bicycle will have access to the bicycle parking spaces provided via bike racks; however, it is recommended to establish a Bike Share hub at the Sixth Street PARC. Currently, there are no bicycle facilities in or adjacent to the study area. A Bike Share hub at the Sixth Street PARC would allow Bike Share participants to dock bicycles at the project site. The installation of bicycle facilities adjacent to the Sixth Street PARC would encourage park users to arrive via bicycle.

Park visitors arriving via personal vehicles can park at one of the four on-street parking zones or at dedicated parking lots discussed in previous sections. It is recommended to require large event permittees develop a site-specific traffic control plan to provide information on parking and circulation and minimize congestion. Traffic control strategies for events could include inbound/outbound flex lanes and sheriff-controlled intersections. The traffic control plan should also identify nearby public parking facilities and identify passenger pick-up/drop-off locations. Since there are multiple venue areas within the project, it is recommended to schedule events at different dates and times to reduce congestion in the area.

Permanent rideshare pick-up and drop-off zones are recommended for the East Park and West Park to mitigate the parking deficiency. Rideshare pick-up/drop-off zones could be located on S Santa Fe Street adjacent to the East Park and S Mission Road adjacent to the West Park. The pick-up/drop-off zones should be clearly marked and wayfinding signage should be installed throughout the PARC.

Park visitors arriving via transit can utilize the following existing transit lines that are near the Sixth Street PARC:

- Metro Local and Limited Lines (18, 53, 60, 62, 106, 720, 760) (Bus) (all within 0.5 miles of project) and
- Metro Dash Line A (Bus) (0.4 miles from project).

It is recommended the City coordinate with Metro to identify potential locations to create and expand public transportation within the vicinity of the PARC. Future improvements such as re-routing the Metro Dash Line F (Bus) line to stop at the Sixth Street PARC and constructing a Sixth Street Metro Station (Rail) to serve the Art District and Boyle Heights neighborhoods should be evaluated.

Appendix A

## 2.5 Proposed Project Elements

The proposed Project would create public recreational space on approximately 13 acres in areas underneath and adjacent to the Viaduct. The proposed Project is divided into the following sections: (1) West Park, which is located in the Central City North Community Plan; (2) Arts Plaza and River Gateway, which is located in the Central City North Community Plan and along the west and east banks of the LA River channel; and (3) East Park, which is located in the Boyle Heights Community Plan (see **Figure 2-3**, Project Site).

The City's Department of Recreation and Parks or some other entity will be responsible for programming activities for the proposed Project. **Table 2-1** provides the proposed programming activities and assumed traffic generators for the proposed Project. **Figure 2-4**, Proposed Site Plan, shows the overall site plan. Detailed site plans and renderings for the proposed park sections are included at the end of Chapter 2 (see **Figure 2-7** through **Figure 2-20**). Construction would be divided into two phases. Phase I would consist of constructing the General Park Elements as well as East Park, West Park, Arts Plaza and River Gateway. Phase II could consist of installing reinforced concrete planted terraces along the banks of the LA River.

### 2.5.1 Phase I

Construction within Phase I may be phased from East to West as space becomes available below the Viaduct. The following elements would be constructed as part of Phase I of the proposed Project:

#### ***General Park Elements***

- Typical park site furnishings and amenities, which would include benches, tables, bike racks, bicycle rentals, kiosks, drinking fountains, safety bollards, lighting and signage, fencing, gates, trash receptacles/enclosures, and equipment and maintenance storage unit(s);
- Pedestrian paths, bicycle paths and connections, and internal park roadways and service roads;
- Park lighting;
- Minor relocations of existing street lighting along Santa Fe Avenue, Mission Road, and Anderson Street within the Project Area;
- Pedestrian street lighting on Santa Fe Avenue, Anderson Street, and South Clarence Street;
- Public art sculpture and associated interpretive exhibits;
- Utility connections (electrical and plumbing);
- Utility relocations and undergrounding in some areas may be required; Other miscellaneous utility improvements such as installation of WiFi, security cameras, and hookups for food trucks, temporary performance equipment (sound and lighting), and water;
- Site soil would be remediated to standards acceptable by the Los Angeles County Fire Department and the Department of Toxic Substances Control prior to proposed Project construction. Some soil remediation activities may also be required during construction;

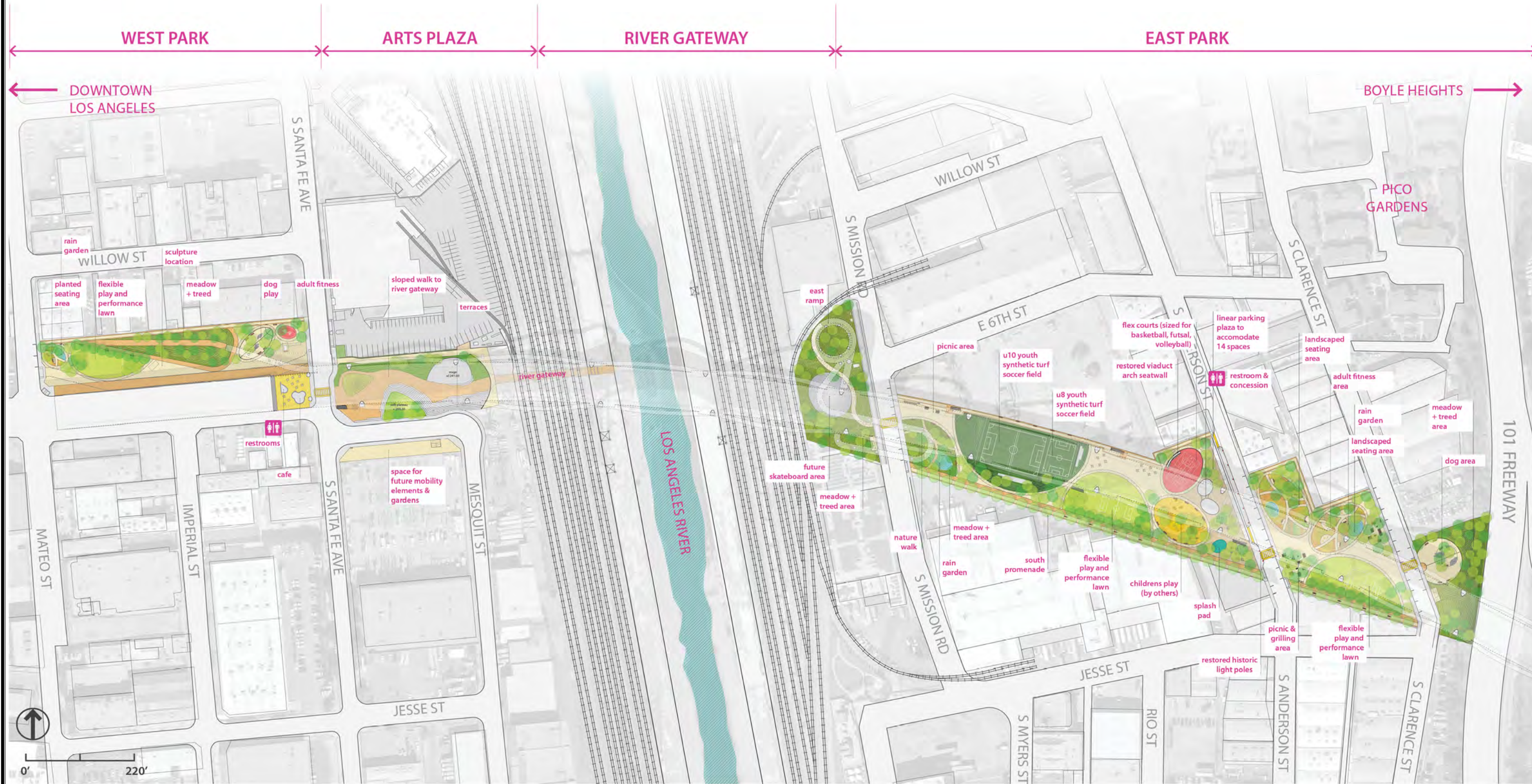
**Table 2-1: Proposed Programming Activities and Assumed Traffic Generators**

Event Type	Location	Approximate Event Capacity	Estimated Annual Frequency	Approximate Event Duration (hours)	Time of day/week
Concerts, performances	Arts Plaza - stage area	1,000	24 events: (2) 1000-persons (10) 200-persons (12) 50-persons	3	Evenings; Weekends
Concerts, Performances, Events, Festivals	East Park - flex play and performance lawns (2)	2,000 (1,000 each area)	26 events: (4) 500-persons (20) 100-persons (2) 1000-persons	6	Evenings; Weekends
Soccer games	East Park - soccer fields	100 (50 each field)	104 (twice a week)	2.5	Evenings; Weekends
Soccer practices	East Park – soccer fields	50 (25 each field)	104 (twice a week)	1.0	Evenings; Weekends
Soccer Tournaments	East Park – Sports courts, Lawns, and Flex Court	(2-day Tournaments) Under 10 Division = 510/day Under 8 Division = 510/day 2,040 total	1-2 times per year	All day (9:00 a.m. – 8:00 p.m.)	All Day
Volleyball, futsal games	East Park - flex court	25	104	2	Evenings; Weekends
Basketball games	East Park - flex court	25	104	2	Evenings; Weekends
Café and outdoor plaza	Arts Plaza	50	Intermittent	11 a.m. – 7 p.m.	7 days/week
Concessions	East Park	25	Intermittent	Intermittent	Evenings; Weekends
Farmers Market	Various	150	52	4 (8 a.m. – 12 p.m.)	Mornings; Weekends
Large Events	East Park – Various Locations	3,300 (flex lawn 1 – 1,300 flex lawn 2 – 1,500 basketball court – 500)	1-2 times per year (1) 5,000-person event/year	All day (11:00 a.m. – 10:00 p.m.)	All Day



# CANOPY & OBJECTS

## OVERALL PLAN



Source: Hargreaves Associates, 2019

**FIGURE 2-4. PROPOSED SITE PLAN**  
Sixth Street PARC Project

- Irrigation systems and open space;
- Demolition of existing urban infrastructure, such as pavement and roadways;
- Landscaping would be consistent with the City's RIO Ordinance (Ordinance Number 183145), which requires that 75 percent of any project's newly landscaped area be planted with any combination of native trees, plants and shrubs, species defined as WatershedWise (i.e., climate adapted and non-invasive plants), or species listed in the Los Angeles River Master Plan Landscaping Guidelines and Plant Palette;
- Connectivity improvements, which may include, but are not limited to, a pedestrian activated crosswalk signal on Santa Fe Avenue, a speed table at the continental crosswalk on Santa Fe Avenue, and speed tables with solar-powered rectangular rapid flashing beacons at South Clarence Street, Mission Road, and South Anderson Street;
- Retaining wall(s), which would be between approximately 2- and 17-feet high; and
- Stormwater infrastructure improvements, which would include proposed stormwater drainage systems that would capture runoff from the proposed Project Site and tributary Viaduct areas, route stormwater to structural and low impact development (LID) best management practices (BMP) (e.g., proprietary vaults with media-filled cartridges, catch basin filter inserts, incidental infiltration during sheet flow and within localized vegetated basins, and below-grade capture and use systems), and discharge to existing stormwater drainage facilities that drain to the LA River.

### ***East Park***

- East Building with approximately 332-square-foot concession area, 252-square-foot public restrooms, and 635-square-foot office space and 571-square-foot storage space for City of Los Angeles Department of Recreation and Parks (RAP);
- Two synthetic turf soccer fields with field lighting, one for youth Under-8 players, and one for youth Under-10 players;
- One flexible play and performance lawn and potential second flexible play and performance lawn with combined capacity to hold events up to approximately 2,800 people;
- Adult-sized flexible sports court for basketball, futsal, and volleyball;
- Salvaged bridge light poles and salvaged arch as barrier/seat wall;
- Nature walk, meadow and adult fitness circuit;
- Splash pad with outdoor shower;
- Designated picnic and grilling areas;
- Landscaped seating areas and rain gardens;
- Small dog and large dog play areas;
- Parking plaza with 14 dedicated spaces on-site (approximately 9 of which would be used by RAP staff);

- Children's play area; and
- Skate park elements.

### ***West Park/Arts Plaza and River Gateway***

- One approximately 630-square-foot café building with outdoor plaza seating;
- One approximately 172-square-foot building with public restrooms;
- Arts Plaza performance area(s), public gathering/assembly areas with capacity up to approximately 1,000 people;
- One flexible play and performance lawn;
- Adult fitness equipment;
- Small dog and large dog play areas;
- Landscaped seating area;
- Public art sculpture (approximately 30 feet high, 24 feet wide, by 11 feet long);
- Rain garden;
- Reconstruction and rehabilitation of existing pedestrian/vehicular LA River Access Tunnel entrance to the River (widening the tunnel opening; resurfacing the tunnel entryway, pavement, and tunnel floor; painting; and lighting improvements). Installation of safety features, including removable bollards or a gate to restrict vehicle access to the tunnel and warning devices to deter pedestrian access during flood events;
- Space for future electric vehicle charging station and City of Los Angeles Department of Transportation (LADOT) mobility hub elements;
- Space for secure bike parking and space for Metro bikeshare; and
- Space for future landscaped garden areas.

## **2.5.2 Phase II**

Phase II could include the installation of reinforced concrete planted terraces on up to approximately 20,000 square feet of the west and east banks of the LA River channel (see **Figure 2-5**, River Channel Design Concept and **Figure 2-6**, River Channel Site Plan). Terracing would be up to approximately 10 feet wide and located as high as possible on the west and east LA River banks. The terraces would be anchored into the existing slope liner and would not require excavation into the LA River channel. All landscaping would consist of species included in the Los Angeles River Master Plan Landscaping Guidelines and Plant Palette, consistent with the City's RIO Ordinance (Ordinance Number 183145). Existing access to the LA River would be maintained.

**Appendix B**













